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10/528,646	09/21/2005	Bachir Hihi	206,923	8524

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Abellman, Frayne & Schwab
666 Third Avenue
10th Floor
New York, NY 10017-5621

EXAMINER	
DAM, DUSTIN Q	
ART UNIT	PAPER NUMBER
1795	
MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/528,646	HIHI, BACHIR	
	Examiner	Art Unit	
	DUSTIN Q. DAM	1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 September 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *7-9* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *7-9* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *January 12, 2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Summary

1. This is the initial Office Action based on the Method of Increasing the Output Power from Photovoltaic Cells filed November 18, 2002.

2. Claims 7-9 are currently pending and have been fully considered.

Claim Objections

3. Claim 9 is objected to because of the following informalities: Claim 9 recites, "A method according to claim 1..." It is construed that applicant intended to state the limitations of claim 9 to depend on claim 7. This interpretation of claim 9 to depend on claim 7 rather than improperly depend on canceled claim 1 is used in its consideration in this Office Action. Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 7-9 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by SASAOKA et al. (U.S. PG-Pub 2002/0148497 A1).

a. With regards to claim 7, SASAOKA et al. discloses a method for the deviation of the sun's rays in a determination direction with the aid of o prism (701, FIG. 3 & 1st sentence, **[0092]** "prism") that has an index of super refraction to 1 (1st sentence, **[0154]** "PMMA"), the surface of the deviated luminous rays being determined by a number of prisms (701, FIG. 2), the adjacent faces (109, FIG. 2) of which are directed to reflect the received light rays on the sole surface of the photovoltaic cells (204, FIG. 2 and 1st sentence, **[0080]** "plurality of cells"), the faces are made of a transparent material (2nd sentence, **[0124]** "light guided member" "PMMA") which absorbs the sun's ultraviolet rays (1st sentence, **[0156]** discloses absorbing UV light on front and back side of prism which back side is the surface of the face 109, FIG. 2), the solar panel being equipped with an electrical system which ensures that it is always directed toward the sun (103, FIG. 1A & see 2nd sentence, **[0149]).**

b. With regards to claim 8, SASAOKA et al. discloses a method wherein the surface of the deviated luminous rays is determined by a number of identical prisms which cover the surface of the face (prisms 701, FIG. 2 covering faces 109, FIG. 2).

c. With regards to claim 9, SASAOKA et al. discloses a method wherein all the adjacent faces at different angles (with respect to the light rays) are directed so that they reflect the receiving light on the sole surface of the photovoltaic cells (FIG. 2 and FIG. 3).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claims 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over O'NEILL (U.S. Patent 4,069,812) in view of SASAOKA et al. (U.S. PG-Pub 2002/0148497 A1).

a. With regards to claim 7, O'NEILL discloses a method for the deviation of the sun's rays in a determination direction with the aid of a prism (22, FIG. 8 & see line 3-5, column 5) that has an index of super refraction to 1 (line 60-63, 10), the surface of the deviated luminous rays being determined by a number of prisms (78, FIG. 8 & see line 3-5, column 5), the adjacent faces (74, FIG. 8 on each flat side of prisms 78) of which are directed to reflect the received light rays on the sole surface of the photovoltaic cells (line 6-9, column 14), the faces of which are made of a transparent material (line 60-63, column 10), the solar panel being equipped with an electric system which ensures that it is always directed toward the sun (line 12-25, column 12 "circuit").

O'NEILL does not appear to explicitly disclose a method wherein the faces absorb the sun's ultraviolet rays.

However, SASAOKA et al. discloses a method and discloses faces (109, FIG. 2) and prisms (701, FIG. 2) that absorb the sun's ultraviolet rays 1st sentence, **[0156]**). It is a known technique in the art, as made evident by SASAOKA et al., to absorb UV light to avoid unwanted heating of solar cells.

Thus, at the time of the invention, it would have been obvious to a person having ordinary skill in the art to modify the method as disclosed by O'NEILL, to include an ultraviolet absorber, as disclosed by SASAOKA et al., because the technique of applying an ultraviolet absorber to a solar cell concentrator is a known and conventional technique that would yield the predictable results of absorbing UV rays and one of ordinary skill in the art would have been motivated to absorb UV to avoid unwanted heating of the solar cells.

b. With regards to claim 8, independent claim 7 is obvious over O'NEILL in view of SASAOKA et al. under 35 U.S.C. 103(a) as discussed above. The combination of O'NEILL and SASAOKA et al. discloses a method for the deviation of the sun's rays in a determined direction with the aid of a prism. O'NEILL discloses a method wherein the surface of the deviated luminous rays is determined by a number of identical prisms (78, FIG. 8 and see line 60-63, column 10 "acrylic plastic") which cover the surface of the face (FIG. 8).

c. With regards to claim 9, independent claim 7 is obvious over O'NEILL in view of SASAOKA et al. under 35 U.S.C. 103(a) as discussed above. The combination of

O'NEILL and SASAOKA et al. discloses a method for the deviation of the sun's rays in a determined direction with the aid of a prism. O'NEILL discloses a method wherein all of the adjacent faces at different angles (74 on back of each prism 78, FIG. 8) are directed so that they reflect the received light on the sole surface of the photovoltaic cells (line 6-9, column 14).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DUSTIN Q. DAM whose telephone number is (571)270-5120. The examiner can normally be reached on Monday through Thursday, 7:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen can be reached on (571)272-1342. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Nam X Nguyen/

Supervisory Patent Examiner, Art Unit 1753

dd
March 7, 2008